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Audubon Field Notes

Published by the National Audubon Society

FALL MIGRATION

Volume I, No. 1 January 1947

John H. Gerard

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AUDUBON FIELD NOTES

Edited by Margaret Brooks Hickey

January 1947

Volume 1, No. 1

Cover photograph by John H. Gerard

AUDUBON FIELD NOTES is published bimonthly by the National Audubon Society. Subscription price is $2.00 per year for the U.S.A., $2.25 foreign. Single copies: Fall Migration (January), Winter Season (May), Spring Migration (July), Nesting Season (September) 25 cents per copy; Christmas Bird Count (March) 60 cents; Breeding-Bird Census (November) 40 cents.

AUDUBON FIELD NOTES regrets that it cannot continue subscriptions beyond date of expiration. Checks and money orders should be made payable to AUDUBON FIELD NOTES. Editorial offices, 1000 Fifth Avenue, New York 28, N. Y. Application for entry as second class matter is pending.

Postmaster: If undeliverable, please notify Audubon Field Notes on form 3578 at 1000 Fifth Avenue, New York 28, N. Y.

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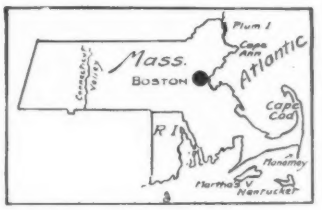
BOSTON REGION.—June was a month of average weather conditions, but the very few reports received indicated an early and very successful breeding season in general and one of the "great" years for the common tern. July was cool and very dry. August was cool and one of the wettest in history, with 10-17 inches of rainfall according to locality. The weather during these two months seemed to have little effect on the fall migration, which was conditioned chiefly by the preceding spring and early breeding season.



From the point of view of the ordinary citizen, rarely has New England enjoyed so lovely and golden a fall. Never-ending Indian summer characterized September, October, and November, the relative mildness becoming more abnormal as the season advanced, in November amounting to over 6° excess of heat daily. There were no severe storms, and rainfall was markedly deficient. The migration of various seafowl was not concluded by the end of the period, and the winter population of others had not arrived.

Two outstanding generalizations marked the fall of 1946: (1) the early departure of group after group of summer residents, notably the terns, laughing gulls, swifts, swallows, and early flycatchers; (2) the spectacular flocks of land birds that poured through the State from late August well into October, stimulated apparently by a well-spaced series of "cool waves" with northwest winds. The variety and abundance of warblers was without precedent in New England. Notable days were August 25 (119 species), September 8 (20 species of warblers), September 12 (108 species), October 2, 4-6, 20 (107 species), with many late records. In between these flights the country appeared to be practically birdless. About 300 species of birds were reported this fall by all observers combined.

Loons and grebes.—No special flights were reported. A western grebe was seen in Essex County on October 20.

Shearwaters.—Poor numbers all summer and fall.

Wilson's petrel.—Notably abundant. Over 1000 were counted on Stillwagon Bank in a couple of hours (Curtis), the greatest number ever reported in New England waters.

Herons.—The great blue heron was notably numerous during all of August and September. There was the first real flight of southern herons in 6 years. Egrets were fairly common (north to central Maine), little blues in smaller numbers, some yellow-crowned nights coastwise, with at least 2 nesting pairs. A Louisiana heron remained at Monomoy for nearly a month (Griscom and many others).

Gannet.—Spectacular numbers were seen off the Cape late in the season, after the early arrival of

the first birds in mid-August. Over 1000 were observed off Monomoy on December 1.

Ducks.—A serious and sharp decline was evident in many species, notably the 2 teal, pintail, baldpate, redhead, canvas-back, and ruddy. Reports of a marked decline in black ducks appear to me to be devoid of sound foundation. The hunting season was admittedly a complete failure, due to unbroken warm and calm weather. There were good numbers of wood duck and hooded merganser, and the greatest counts of buffle-head in this generation, with over 1000 in Essex County, Mass., in one day. For the first time since the war it was possible to survey the great shoals east of Monomoy by boat on two occasions. On December 1 there were 80,000-100,000 eiders (a prodigious increase in 5 years) and a quarter-million scoters.

Hawks.—The flight of most species was very poor and unsatisfactory. A great broad-winged flight went over Mt. Tom a week ahead of schedule, but otherwise the season was a failure.

Shorebirds.—One of the events of the season was the "crash" in the numbers of this group. The July flight of adults was up to par, but no second peak of the young birds of the year ever developed. In late August and early September, the period of maximum variety and abundance, the results at all prize localities resembled normal counts for mid-October. All the rarer western species were affected, as well as the turnstone, knot, white-rumped sandpiper, and sanderling. Some of these species apparently raised practically no young in the Arctic.

A species obviously in serious trouble is the Wilson's snipe. I doubt if the number of individuals reported in the State was substantially greater than the number of golden plover.

Jaegers.—A fair flight off Cape Cod.

Terns.—Summer residents departed very early, and there was a poor flight of the rarer transients—Caspian, Forster's, and black. A sooty tern on July 28 was the only southern straggler.

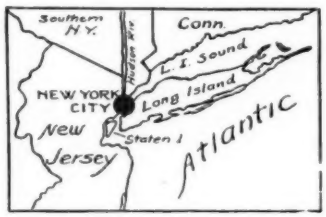
Gulls.—Black-backed and ring-billed gulls continued to increase. There were several records of Franklin's gull, and both European species.

Alcids.—Auks, murres, and dovekies appeared in small numbers in late November and early December.

Land birds.—The white-crowned and fox sparrows and the mourning warbler were almost the only small birds not to be reported in exceptional numbers. A fair movement of red-breasted nuthatches was noted, and a great flight of siskins in late October and early November. Numbers of the Arkansas kingbird continued their downward trend.

Innumerable very rare species and "stragglers" were reported. Of greatest interest was the dickcissel, because of a slight change in status, suggesting a trend. In recent years it has been recorded almost annually in fall (or winter at a feeding station). No less than *a dozen* were reported this year. I actually saw 5 and collected one. Next in importance, continuing a trend that is nationwide, was the white pelican—one in Rhode Island (Kraus), and another on the Parker River Refuge in Essex County. A blue goose at the latter place on October 23 (Clarence Cottam) was shot a few miles farther south on the 26th. I collected a Greenland dunlin at Monomoy on August 4, a western lark sparrow at Ipswich on September 12, and a northern hairy woodpecker at Nahant on October 2.—LUDLOW GRISCOM, *Museum of Comparative Zoology, Cambridge 38, Mass.*

NEW YORK REGION.—Following an August of quite-normal weather conditions, records that had been standing for years were repeatedly broken during the remainder of the migration season. The average temperature for September was 3° above normal and the total precipitation showed a deficiency of an inch; prevailing winds were north and light. We then experienced the warmest October since the establishment of the Weather Bureau. Daily records for maximum temperatures were frequently broken and, added to this, it was the dryest October for 18 years, the total rainfall being but ¼ inch. The warm weather continued through the following month and November equaled the second warmest ever recorded here. Precipitation continued deficient, over 1½ inches below normal. It was expected that this prolonged period of abnormally high temperature would be correlated with some abnormal features of the southbound migration, that birds would be late in their arrival in the region and would flow through without definite crests or peaks, or that some individuals would linger in the locality and establish new late dates. These features were not at all apparent, however, and the migration progressed in a perfectly normal way.



Gannets and cormorants.—The flight of gannets was good as late as the first week of November. Cormorants started south early and continued to move in more than average numbers to November 1.

Waterfowl.—Reports of snow geese increase from year to year and recently not a fall or spring have passed without some being recorded in the region: in mid-November 2 flocks over western Long Island (Grant, *et al.*); a single bird at Jones Beach, November 9 (Elliott); 5 over Franklin Lake, N.J., November 28 (Evans); and a small flock over Boonton Reservoir in early November (Eynon). Apart from these geese the Anatidae flight was disappointing. Black ducks and scoters were present in about normal numbers but all other species were definitely down. Wood ducks were entirely

missing in all reports. Scaups were here but not in any large numbers; canvas-backs and redheads were low in numbers.

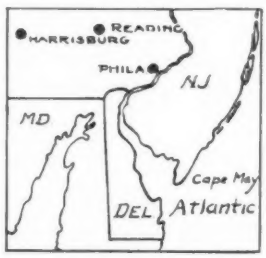
Birds of prey.—The hawk flight started early, the first reported movement being on August 11. By the end of that month the migration was well underway. During September the numbers passing over the New Jersey ridges were low. The peak of the broad-wing flight passed through early, with counts much below past years. By early November most of the smaller hawks had gone through, and on November 5 red-tails predominated, over 500 being counted. Associated with these were golden eagles, goshawks, duck hawks and one rough-leg (Herbert). Reports of migrant golden eagles were unusually frequent last fall, but only 1 rough-legged hawk was recorded. In spite of many observers on the ridges noting migratory hawks, only 2 ravens were reported—on November 10 at Bear Mountain (Komorowski).

Shorebirds.—Shorebirds moved through in about usual numbers and at their accustomed times. Both the northern and the Wilson's phalaropes were not uncommon, the latter in unexpected numbers. Black-bellied plover and red-backed sandpipers were up in numbers. Both godwits were frequently reported. The last large flock of skimmers was reported at Atlantic Beach, with 400 on September 22 (Bull); a few stragglers tarried until November 29.

Land birds.—The flight of blue jays was heavy throughout the entire fall. The warbler migration was normal, with the highest individual count on September 12. Tennessee and Cape May warblers were fairly common, blackburnians rare, and few orange-crowneds. Throughout the entire region large numbers of pine siskins were reported. On November 9 at Jones Beach betwen 7:30 and 9 a.m. an estimated 1500 passed along the beach, flying westward into a strong northwest wind; the birds were in small flocks, the largest consisting of about 40 individuals (Elliott). At Atlantic Beach on the following morning another flight was noted with an estimate of 800 siskins and more than twice as many goldfinches. These birds were also flying west and by 10 a.m. had entirely disappeared (Bull). At other points smaller flights were reported.

Rarities.—On September 28 an Audubon's caracara was reported in Alley Pond Park, L.I. (Flavin, Eisenmann). The bird was in immature plumage and, as it remained in the locality for several days, it was closely seen by many observers. There was no apparent indication of its having been a captive bird, and a canvass of all local zoos did not reveal an escape. A white pelican appeared at Jones Beach, L.I., on October 12 and remained there until the 17th. At Moriches Inlet, L.I., what was presumably the same bird was seen from October 28 to 30 (Elliott, Wilcox, Reid). Other rarities included a gray kingbird at Point Pleasant, N.J., September 18 (Clausen, Edwards); avocets at Jones Beach, L.I., September 4-28, maximum 6; 1 ruff at Moriches, L.I., August 3 (Mayer, Rose); 1 dickcissel at Mecox, L.I., another at Idlewild, L.I., in late September (Darrow, Mayer), and still another at a feeding station at Ramsey, N. J., December 9-14 (Runk).—CHARLES K. NICHOLS, *American Museum of Natural History, New York 24, N. Y.*

PHILADELPHIA REGION.—The weather during the fall migration was abnormally warm. The prolonged growing season was not ended by a killing frost until November 16. Winter weather descended on December 2, with the temperature dropping to 15°.



Gannets. — First observed at Cape May, N.J., October 26 (Northwood). A large flight was recorded along the coast of Cape May County on November 3, with 200 at the entrance of Delaware Bay (Kramer).

Cormorants.—A large southbound migration of these birds occurred between October 20 and 28 along the New Jersey coast. "A great flock in a wavering string flying south" at Wildwood, N.J., October 28 (Northwood); 1600 at Avalon, N.J., October 27 (Jacobs). A European cormorant was seen at Cape May, N.J., October 23 (Northwood).

Herons.—Interesting counts were made at the Stone Harbor heron roost from September 6 to 28 (Northwood). The highest count, 976, was obtained on September 28. On September 9, about 800 herons were divided as follows: 75% little blue herons and snowy egrets, 15% American egrets, 5% black-crowned night herons, and 5% green herons. On September 27, a goshawk was seen at the roost; it made several sallies at the disturbed and frightened herons, but apparently harmed none. Most of the herons flew off down the coast, but 3 immature night herons remained perched near the hawk. Other heron records: Louisiana heron, Stone Harbor, N.J., August 3 (Mrs. L. R. Leuallen); snowy egret, Delair, N.J., August 18 (Haines).

Waterfowl.—Judging from the majority of reports, the number of ducks and geese migrating last fall was somewhat below normal and the flight occurred later than usual. The wildfowl refuges at Fort Mott, N.J., and Bombay Hook, Del., had large concentrations of ducks immediately after the fall hunting season opened. Refuge Manager Spinner reported about 20,000 ducks of various species at the Bombay Hook Refuge during the second week of November. On November 10, members of the Delaware Valley Ornithological Club recorded 15 species there, including about 1000 gadwall, 50 ruddy ducks, 3 hooded mergansers, and several thousand in the aggregate of pintail, black duck, baldpate, green-winged teal, and blue-winged teal. The flock of greater snow geese arrived at Fortescue,

N.J., on November 19 between 2:30 and 3 a.m. (Captain Clark); as they settled on the surface of Delaware Bay, their clamor awakened the inhabitants of the small community.

Vultures.—Two black vultures were seen at Bombay Hook, Del., November 10 (numerous observers).

Hawks and eagles.—The Cape May hawk migration was well underway by September 12 and continued into November. Pigeon hawks were, as usual, a conspicuous feature of the migration. On October 2, Northwood observed "hundreds of pigeon hawks and sparrow hawks, like a flight of swallows, over the meadows between the point and the light house: strong west wind." On September 1, the same observer reported seeing a swallow-tailed kite, and on September 4 a golden eagle at Cape May, N.J. On November 10, 25 bald eagles were noted at Cape May (LaDow). The hawk and eagle migration at Hawk Mountain was rather poor during the early part of the season due, no doubt, to the mild weather: a fine flight of red-tailed hawks occurred there during early November, and on November 19 Q. Kramer reported 12 golden eagles passing the lookout. At West Chester, Pa., 20 bald eagles were recorded between August 20 and September 15 (Heed, Newman).

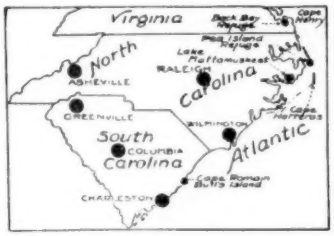
Shorebirds.—The shorebirds passed south in their usual abundance during the late summer and fall. Some of the more interesting records were: golden plover, 1, Stone Harbor, N.J., August 7 (Moore), 1 at the same place on September 22, and another at Avalon, N.J., on September 22 (Conway, Martin); marbled godwit, 2, Townsends Inlet, N.J., September 20 (Conway, Crawford), 4 at Anglesea, N.J., on September 1 (Wonderly), 2 at Stone Harbor on September 4 (Northwood, Choate), and 1 at Beach Haven, N.J., on August 18 (several observers); willet, 1, Delair, N.J., August 18; Hudsonian godwit, 1 feeding with a flock of killdeer at Pedricktown, N.J., November 24 (Haines); stilt sandpiper, 5, Tinicum, Pa., August 25 (Culver).

Jaegers.—Parasitic jaegers were present at Cape May from September 7 to November 3 (Northwood, Kramer)—2 on September 7, 12-15 on October 25, 5 on November 2, and 3 on November 3.

Owls.—Barn owls were present at Cape May from September 26 to October 28; 3 were seen on October 21, while on the 28th about a dozen were disturbed in the woods and others were heard passing over in the evening (Northwood). Barn owl, 1, Bartonville, Pa., September 14 (Mr. and Mrs. Wm. Reid). Short-eared owl, 1, Fish House, N.J., August 31 (Corn); 1, Wildwood, N.J., September 4 (Northwood). There appeared to be no marked flight of saw-whet owls this fall—only one record.

Land birds.—Red-headed woodpecker, 1, West Chester, Pa., October 3 (Heed). Arkansas kingbird, 2, Mt. Laurel, N.J., September 21 (E. and H. Moore); 1, Cape May, October 12 (Northwood). Philadelphia vireo, 2, northern Chester County, Pa., September 28 (Martin). Warblers were very abundant last fall. A typical report, by Martin, listed 27 different species at West Chester, Pa., between August 29 and October 10. Cape May warblers were especially abundant; first seen on August 23, 40 on September 4, and 12 on October 6. Siskins were quite numerous, with reports of flocks as high as 200. The only redpoll record was that of a dead bird found at Sea Isle City, N.J., November 6 (H. Fox).—Julian K. Potter, *437 Park Ave., Collingswood, N.J.*

CAROLINA REGION.—Coastal Section.—Temperatures were much above normal, and rainfall moderate. These factors made the season appear to be about 2 weeks late.



Migration.—(Where no locality is given, data apply to Charleston area.) Among late-departing summer residents were: summer tanager, Norfolk, September 14 (Mrs. A. C. Reed); yellow-throated vireo, October 20, previous extreme on September 21 (Rabb, Mosimann, Seebeck); kingbird, September 28 (M., R.), previous extreme on September 15, 1945; white ibis, September 28 (Sass), and November 29 (R., M., S.), previous extreme on August 25, 1945; prairie warbler, November 25 (Sprunt), previous extreme on September 23, 1945; hooded warbler, September 22, Norfolk (Reed) and October 4 (M., R.), previous extreme on September 22, 1943; Swainson's warbler, September 28 (M., R.), equals previous extreme; blue-gray gnatcatcher and white-eyed vireo, Mattamuskeet, November 17 (Scott, Odum), should winter sparingly on the lower North Carolina coast; purple martin, November 3, previous extreme on October 24. Among transients were: bank swallow, September 29 (M., R.), about 2 weeks later than previous extreme; late in varying degrees were the magnolia warbler on October 18, Cape May on October 5, and black-throated blue on November 4 (M., R., S.); worm-eating warbler, September 12 at Norfolk (Mrs. R.), to November 9 at Charleston (M., R.), previous extreme on October 11. Half a dozen other land transients appeared to be normal as to dates, as did most shorebirds, although a greater yellow-legs on November 17 at Mattamuskeet (Scott) and a Hudsonian curlew at Wilmington on November 29 (Bob Holmes III) appeared to be late (both may winter sparingly).

Of 60-odd incoming species of winter residents, about 45% seemed late, 40% on time, and the remainder somewhat early. Late arrivals at Mattamuskeet were: mallard, October 20; black duck, October 28; ruddy duck, November 5 (W. G. Cahoon). Late arrivals at Cape Charles were: surf and American scoters, November 7 (Mrs. R.); marsh

hawk, October 5 (Mrs. R.); hermit thrush, November 17, previous extreme on October 23, 1944; vesper sparrow, October 26, previous extreme on September 22, 1943; savannah sparrow, October 23, previous extreme on September 26, 1943. Early arrivals were: a sora at Virginia Beach, August 9 (Virginia Pickell); prairie horned lark, Cape Charles, August 30, and white-winged scoter, October 9 (Mrs. R.); pintail on September 1, and brant on September 19 at Mattamuskeet (Cahoon); blue-headed vireo, October 19, previous extreme on November 12, 1943; winter wren, October 29, previous extreme on November 15, 1942. Red-breasted nuthatches were reported from Norfolk on September 11 (Reed, Pickell), Mattamuskeet on November 17 (Odum, Moon), and Wilmington on November 29 (Holmes). Equally interesting was a lesser snow goose, Mattamuskeet, November 16 (Cahoon).

Populations.—Reports of nighthawk flights were lacking along the coast. Incomplete returns on waterfowl indicated that numbers approached the 1941-42 level in some places, poorer in others.

Unusual.—Man-o'-war-bird, Charleston, September 29 (Holmes); Arkansas kingbird at Wilmington on October 19 (Mrs. C. M. Appleberry), and Mattamuskeet on November 17 (Odum, *et al.*); golden plover, 5 at Cape Charles on October 9 (Mrs. R.), and 1 at Charleston on the same date (M., R.), following a blow at both places; also at Cape Charles were a Canada warbler on September 13, the first for the area (R., P.), and a pomarine jaeger on October 9-26; upland plover, 6, Norfolk, September 11 (Mrs. R.) and a flock of 10-12, apparently this species, near Charleston in November (M., R., R.).

INLAND SECTION.—Unseasonably high temperatures in October and November made this season of particular interest. No killing frost was experienced until November 14, about 10 days later than average.

Southward stragglers.—That these temperatures had some effect on southbound birds seemed to be indicated by the following late last-seen dates. A month late at Chapel Hill were: black and white warbler, November 8; palm warbler, November 18; a singing yellow-throated vireo, October 24 (John Trott); chestnut-sided warbler, November 9. Other late dates were: from Asheville—oven-bird on October 16, house wren on October 25 (Mrs. D. W. Grinnell); from Henderson, N.C.—house wren on November 1 (Mrs. A. W. Bachman); from Columbia, S. C.—indigo bunting on October 28 (Mrs. G. F. Charles); from Raleigh—green heron on October 12 (Ernest Mitchell).

Special migrations.—Mrs. E. B. Clarkson and B. R. Chamberlain at Charlotte noted numbers of migrating nighthawks on the evenings of September 9-11, the birds passing over at rates of 104 and 600 an hour. These were also observed at the same time at Columbia, S. C. (Mack Branham). Between October 13 and 25 Mrs. Clarkson witnessed numbers of orange-crowned warblers (heretofore never recorded at Charlotte) and ruby-crowned kinglets. In white-throated sparrows Gabriel Cannon at Spartanburg, S. C., observed a definite change from none to many birds during the night of October 15, at which time high pressure, clear skies, and light northeasterly winds covered the eastern states.

Wanderers.—Raleigh airport, piping plover, September 23 (Harry Yeatman); wood ibis killed, Lexington County, S. C., August 15.

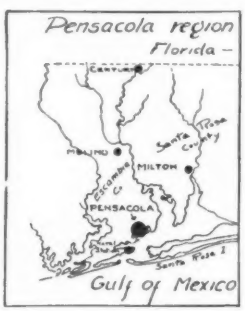
Winter residents.—Unlike southward departures, northern arrivals seemed to be on time.

Irregular winter residents.—Pine siskins were reported from 3 localities: Asheville, November 3 (Grinnell); Chapel Hill, November 18 (Bill Thomas); Charlotte, November 19 (Clarkson). Red-breasted nuthatches were recorded from 5 localities, the earliest being at Asheville on October 3 (Grinnell). Pipits were seen at Hickory, N. C., on the early date of September 25 (D. L. Wray). The redpoll was seen at Asheville on October 29 and November 1, and white-crowned sparrows arrived there on November 19 (Grinnell).

Waterfowl.—Arrival dates for Canada geese were: Yadkin River region, October 20 (Gaines); Roanoke Rapids, October 8 (Clara Hearne); Chapel Hill, November 6 (W. Hamnet). Black ducks appeared at Raleigh on November 2 (Mitchell), and at Chapel Hill on October 5. Baldpates were noted on October 17 at Greensboro, N. C. (Bill Craft).

Late nesting.—At Arden, N. C., 4 young goldfinches were seen out of the nest on October 5 (Grinnell).—E. B. CHAMBERLAIN, *Charleston Museum, Charleston, S. C.*, and HOWARD T. ODUM, *Chapel Hill, N. C.*

PENSACOLA (FLA.) REGION.—Fall migration commenced in July and is not yet over as this is being written (December 11). Temperatures over this period have varied but little from normal, except that this November was the warmest ever recorded by the local Weather Bureau office. A graph of rainfall would show sharp peaks and hollows in successive months—far above normal in July, September, and November, and almost as far below normal in August and October. No hurricanes were experienced. The first light frost to reach the coast occurred on December 4.



Rarities.—The 3-mile, low-level bridge across Pensacola Bay, mentioned in earlier reports as having killed many fall migrants, furnished several prizes this season: a black rail on September 2 (F. Bray) was one of the few ever known in this region; Swainson's warbler on October 2 was 19 days later than ever before recorded and was the only one I

have ever seen away from its actual breeding ground (I had never before found this species in migration); a red phalarope on October 29 (Mrs. J. F. Wernicke) was only the third specimen to be recorded for all Florida; a dickcissel on November 23 (Mrs. Wernicke) was one of the very few ever known in this region, although the species breeds commonly 150 miles to the northward.

Another dickcissel was seen on September 29; chestnut-sided warbler, October 20; knot (very rare), present from October 27 through November 4, stayed later than ever before recorded; rufous hummingbird appeared on November 24 for the first time since January 1942 (Mrs. M. McClanahan).

Arrivals.—Several species arrived earlier than ever before recorded: ruddy turnstone, July 21 (earliest by 9 days); whip-poor-will (C. J. Kahn), September 4 (earliest by 7 days); ruby-crowned kinglet (Mrs. Wernicke), October 2 (earliest by 6 days); blue goose, October 20 (earliest by 8 days); goldfinch (Mrs. A. L. Whigham), November 8 (earliest by 3 days); and gannet (very rare in the Gulf), December 8 (earliest by 8 days). Other arrival dates were: spotted sandpiper and lesser yellow-legs, July 20 (Kahn); sanderling in nuptial plumage (Kahn), and least, western, and semipalmated sandpipers, dowitcher, semipalmated plover, July 21; piping plover, July 24; black and white warbler and yellow warbler, July 28; barn swallow, August 4 (Mrs. Wernicke); bank swallow, August 10; prairie warbler, August 11; black-bellied plover in nuptial plumage, August 16 (Kahn); sora (Kahn) and northern water-thrush, August 25; redstart, September 3 (Mrs. Wernicke); blackburnian warbler, September 8; pigeon hawk, September 15; rose-breasted grosbeak, September 16 (Mrs. Whigham); cerulean warbler (very rare), September 18; olive-backed thrush and magnolia warbler, September 25; Virginia rail, September 26 (Mrs. Wernicke); double-crested cormorant, September 28; Bewick's wren, September 29; phoebe and house wren, October 2; Arkansas kingbird, October 7 (Mrs. Wernicke); myrtle warbler, October 10 (Mrs. Whigham); Tennessee warbler, October 11 (Mrs. Whigham); yellow-bellied sapsucker (Mrs. Wernicke) and white-throated sparrow (Mrs. Whigham), October 12; white pelican, American bittern, coot, herring gull, and palm warbler, October 13; orange-crowned warbler, October 17 (Miss L. Pate); common loon, snow goose, duck hawk, and killdeer, October 20; field sparrow, October 21 (Mrs. Whigham); swamp sparrow, October 23; hermit thrush, October 27; golden-crowned kinglet and song sparrow, October 30; red-backed sandpiper, November 3; cedar waxwing, November 4 (Mrs. Wernicke); red-breasted merganser and lesser scaup, November 6; robin, November 8 (Mrs. Whigham); horned grebe, November 13; vesper sparrow, November 16; American golden-eye and hooded merganser, November 21; buffle-head and brown creeper, December 8; Bonaparte's gull, December 11.

Departures.—Several migrants were seen later than ever before recorded: orchard oriole (Miss Pate), September 12 (latest by 9 days); prothonotary warbler, September 29 (latest by 9 days); hooded warbler, November 3 (latest by 9 days); and indigo bunting (Mrs. Whigham), November 9 (latest by 5 days). The eastern kingbird, departing on September 25 (normal) was followed by a lone straggler on October 24 (latest by 15 days). Other departure dates were: Mississippi kite, August 4; Wilson's plover, September 1; Kentucky warbler, September 2; broad-winged hawk, September 8; least tern and purple martin, September 15; gray kingbird, September 18; prairie warbler, September 20 (F. Bray); Cabot's and black terns and blackburnian warbler, September 29; white ibis, October 1; yellow warbler (Miss Pate), northern water-thrush and crested flycatcher, October 2; Louisiana and little blue herons, October 5; yellow-breasted chat, October 12 (Miss Pate); parula warbler, October 13; red-eyed vireo, October 16; chimney swift, wood pewee, barn swallow, black-throated green warbler, redstart, summer tanager, and blue grosbeak, October 20; olive-backed thrush, October 21; rose-breasted grosbeak, October 22 (Mrs. Whigham); pectoral sandpiper and yellow-billed cuckoo, October 23; semipalmated and western sandpipers, wood thrush and magnolia warbler, October 27; ruby-throated hummingbird, October 28 (Mrs. Whigham); and osprey, November 11.

Nesting.—A late brood of mourning doves left the nest on October 2 (Mrs. Wernicke); a bald eagle was seen incubating on November 28.—FRANCIS M. WESTON, *2006 E. Jordan St., Pensacola, Fla.*

OHIO-MICHIGAN REGION.—It was a pleasant fall. Cooler than usual at the start and much warmer than usual toward the close, the weather was remarkably uniform from August through November. The first real freeze did not come until after the middle of November.

Migration.—The big news of the fall was bad news. The duck flight in this region was the worst in history. Until almost the close of the season, wishful thinkers among the duck hunters and newspaper sports writers attempted to explain the scarcity of ducks by saying that the big flight had not yet arrived. It never did arrive. Most discouragingly off in numbers were the ordinarily abundant pintail, baldpate, and lesser scaup. Mallards and black ducks held up a little better, although the blacks were far below last year.

In this region the flight of blue and lesser snow

geese is unpredictable. In many years the geese fly through at high altitudes and apparently without stopping; at such times, few are seen. Occasionally the pattern is quite different and migrating flocks linger for several weeks, as they did last year. This year was intermediate between these two extremes, with a good many seen in flight but not lingering, particularly about October 20 and November 2.

Black, continuing his careful study of the snowy owls in Michigan, found a scattering of records that would point to a light or moderate flight this winter but nothing to compare with the huge movement a year ago.

American egrets were noted at the large marshes in fair numbers throughout late summer and early fall, but other southern herons were almost entirely missing. Snowy egrets were not reported, and I have only 2 Ohio records of the little blue heron: near Akron on August 4 (Smith), and near Marion on August 17 (Thomas).

It is perhaps normal for midwestern observers to complain of scanty territory for shorebirds, but this year there seemed to be a special scarcity of the deep probers, such as the dowitcher and stilt sandpiper.

The year was a poor one for gamebirds generally. Woodcock and Wilson's snipe were so few in numbers as to be negligible as hunting attractions. The ring-necked pheasant, far below normal, is still an abundant bird in northwestern Ohio. The European partridge, stocked some years ago in Ohio, has almost vanished. The ruffed grouse was not numerous anywhere in its favored habitat in northern Michigan.

The warbler migration was unspectacular but prolonged, as might have been expected from the mild temperatures and persistence of green foliage.

Rarities.—Except for an avocet at Sandusky, Ohio, on September 19 (Godfrey, Hill, and others), and 3 white pelicans from August 12 to October 12 in southeastern Michigan near Toledo (Campbell, Mayfield), there were no exceptional rarities reported this season. However, there were several occurrences of local interest. A red-throated loon, unable to take wing from a farmer's field in Alcona County, northern Michigan, was captured on December 4 and released (Dockham). Among the shorebirds were 3 knots in southeastern Michigan on October 27 (Mayfield), and 1 at Mosquito Creek Reservoir near Youngstown on September 1 (Hill); at the same time and place there were 2 buff-breasted sandpipers, and on the following day, a Baird's sandpiper (Hill, Stewart); Hudsonian curlew on September 14 at Pymatuning Lake in Ohio (Smith); western sandpiper on August 27 and September 10 near Ashland (Kahl). A mockingbird remained for several weeks in October and November near Toledo (Van Camp). A long-eared owl was seen at Utica, Ohio, on November 11 (Thomas), and a saw-whet owl at Toledo on October 29 (Brandenberg).—HAROLD MAYFIELD, 2557 *Portsmouth Ave., Toledo, Ohio.*

MIDDLE-WESTERN REGION.—A 2-months' period of scant rainfall was ended by thundershowers in late August, particularly in the west. Rains in

September and October restored moisture conditions in South Dakota, Nebraska, and Iowa, but there were no heavy rains in Illinois and Wisconsin until late October. Temperatures were warmer than usual in July and August, below normal in September (with light frosts). The first hard freeze did not come until about November 19, providing an unusually long growing season.

In general, the migration of geese, especially snows and blues, indicated an increase in numbers; waterfowl were less abundant, with no pronounced flights; shorebirds, hawks, and owls were noted in better than average numbers; and land birds, while reported in some instances as locally scarce, were near normal throughout the region.

Following a moderately successful waterfowl nesting season, limited somewhat by the drying up of sloughs in the Northwest, these birds began moving southward early, with October and November flights of "northern" ducks considerably reduced in numbers.

The flight of blue-winged teal began somewhat earlier than normal, although water levels and food supplies were satisfactory on the national wildlife refuges. The first migrating flock of 800 birds was noted on the Chautauqua Refuge, Ill., August 11 (Ellebrecht). On the Upper Mississippi Refuge, blue-winged teal were reduced in numbers with migration generally retarded, although the first migrants were noted on July 25 at La Crosse, Wis. Few migrants were noted thereafter until September (Steele). On the Union Slough Refuge in northwestern Iowa about 1500 blue-winged teal moved in on August 24, but when the temperature dropped to 42° on the 29th this group moved southward (Smith).

On the Horicon Refuge, Wis., the annual August count of male blue-winged teal along the ditches tributary to the Rock River disclosed a drop from the previous 7 per mile to 5.5 per mile. The continued drop in water levels in August forced most of the ducks to use these ditches, resulting in increased field feeding, particularly in harvested grain fields (Gray).

Three broods of pintails were noted on the Horicon Refuge this season. Green-winged teal probably nested there, since a possible brood of 6 was flushed in late August. Small flocks of baldpate

Photo by Roger T. Peterson

The kingbird seemed to take advantage of last fall's unusually mild weather that prevailed throughout the East, where it was recorded on unprecedented late dates.

were seen throughout the summer, but evidence of nesting was lacking (Gray).

Wood ducks continued to be the most numerous nesting waterfowl on the Upper Mississippi Refuge. In the Bellevue, Iowa, district of the refuge, brood-census figures showed wood duck broods averaged 5.7, blue-wings 6.5, and mallards 6.8. At least 20,000 wood ducks were estimated to be present during August along the Mississippi River from Rock Island to Alton, Ill. (Steele), while on the Chautauqua Refuge at the same time not more than 2000 were found (Ellebrecht). At Rockford, Ill., Prentice reported a remarkable increase in wood ducks over last year, both in breeding birds and migrants.

Green-winged teal were reported to be commoner than usual at West Lafayette, Ind., where Irving W. Burr and Merritt S. Webster found 30 on Headley's Lake on October 19. At Springfield, Ill., black ducks outnumbered mallards in early November (Eifert, Allyn). These birds have continued to spread westward in recent years and are now found regularly in Iowa and the Dakotas.

Six white-winged scoters were seen October 13 at the Orland Wildlife Refuge, Chicago, by members of the C.O.S., while several were seen on November 3 at Quincy (Musselman). On November 16, Nork and Clark saw 16 whistling swans at Orland—their first record in 10 years in the Chicago region.

By November 1 Frank Bellrose, game technician of the Illinois Natural History Survey, estimated less than 375,000 ducks of all species were in the Illinois River valley. Peak migration normally results in about 3 million birds in this area, but by November 7 not more than 1 million ducks had arrived. Of this number about one-quarter, mostly mallards, were on the Chautauqua Refuge.

Closing of the Mississippi flyway to Canada goose hunting seems to have resulted in blue and snow geese being less disturbed. About 3000 of these birds were on the Chautauqua Refuge on November 7. The principal flights of these geese occurred about October 17-28. Donald S. Prentice reported 10 flocks numbering 3000 birds on the Rock River near Rockford, Ill., between October 17 and 20. At Orland Lake, Chicago, 5 blue geese were seen on October 19, and 50 blues and 30 snows on October 27 (Clark). Goose flights, all of them believed to be blue and snow geese, occurred at West Lafayette, Ind., on October 19, a large flight November 1 and 2, and 4 birds were seen on November 4 (Burr, Webster). At McGinnis Slough, Chicago, 50 blue and snow geese were seen on October 26 (Nice). Between 200 and 300 of these geese arrived at Springfield, Ill., on October 28; additional birds enlarged the flock daily into November (Bonney); when 500-600 had assembled, the ratio was about 7 blues to 1 snow (Eifert, Allyn). On November 6 and 7, a flock of about 500 snow and blue geese was feeding on the Horicon Refuge on land that had been used for potatoes and corn (Fermanich). A small flock of snows was seen at Yankton, S. D. (Larrabee), while James Harlan reported that Iowa experienced the heaviest fall flight of blue geese in modern times. It is believed that this change in behavior in recent years, which accounted for several thousand birds stopping this fall, is due to the use of mechanical corn pickers that flatten corn stalks and shatter much grain, making a perfect goose-feeding habitat. Both blue and snow geese were still present at Springfield, Ill., on November 16 (O'Brien).

American egrets were generally reported to be more abundant than at any time in recent years. On the Union Slough Refuge, 50 egrets were present on August 16, as compared with 9 last year (Smith). In Allamakee County, Iowa, they were twice as numerous as last year along the Mississippi River (Chas. Stewart). On the Upper Mississippi Refuge, 75 were reported as far north as Pool 3 near Hastings, Minn. About 3000 were estimated for the entire refuge in August, with 1200 of these on Pool 26 below Rock Island. Chautauqua Refuge reported a drop in the number of egrets from 800 in 1945 to 350 in 1946. At West Lafayette, these birds were most abundant in July, arriving earlier than usual. Clark reported seeing a flock of 7 egrets flying over Lake Michigan off Lincoln Park, Chicago, on September 24. A flock of 16 on September 21 at Rockford, Ill., constituted Prentice's last observation. A group of 20 was seen at Springfield Lake on September 22, with October 10 as the last date (Eifert, Allyn); 25 were seen flying on that date (Bonney). At Quincy, Ill., the last egret was noted on November 4 (Musselman).

A single adult little blue heron was seen at the State Fish Hatchery, Rockford, Ill., on September 4 (Prentice). A glossy ibis, identified as the eastern race, was observed on the Horicon Refuge on June 18 (Gray); this is believed to be the only Wisconsin record in recent years. Two white pelicans were noted near the refuge on August 4 (Gray). Migrant pelicans were seen at Quincy, Ill., on September 23 (Musselman). The main flight of double-crested cormorants occurred at Quincy on October 17. On November 3, Musselman saw 4 sandhill cranes—his first record in 25 years at Quincy.

Information from North Dakota indicated the southward flight of snowy owls to be both large and very early—the birds being scattered over the State by November 12-14 (Bach). In this region the first bird, a female, was shot at Rockford, Ill., on September 11 (Prentice). A single bird was seen on the November 17 C.O.S. field trip to the Indiana Dunes, near Tremont.

On September 26, Musselman saw the biggest migration of hawks at Quincy that he had seen in years. Several thousand passed over, including red-tails, red-shouldered, Cooper's, and sparrow hawks. Scattered flights, aggregating 135 individuals, during September and October at Loganville, Wis., included 11 species with 70 Cooper's, 100 red-tails, 180 broad-wings, and, on October 16-18, 20 American rough-legs (Harold Kruse). The latter were

also noted on October 13 at Rockford (Prentice), and many at Springfield on November 11 (Eifert). A ferruginous rough-leg was seen north of Ankeny, Iowa, September 8 (Stiles). Two bald eagles were found on the Chautauqua Refuge on August 20, and 8 juveniles on August 31—earlier than last year (Ellebrecht).

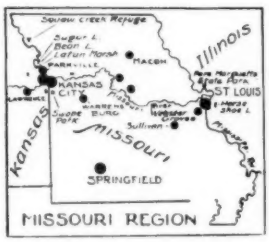
A female Wilson's phalarope was observed on the Horicon Refuge, June 13, with all the behavior characteristics indicative of nesting (Gray). A single northern phalarope was seen on September 2 at Calumet Lake, 2 at the same place on September 7, and 1 at the Orland Refuge on October 13 (Nork, Clark). Knots were reported several times in the Chicago area by Clark—1 on August 31, 3 on September 8, and 1 on September 14, all on Montrose Beach, and 2 at Wolf Lake on September 15. Twenty-three species of shorebirds were noted by Clark during the fall flight at Chicago, including a western and a buff-breasted sandpiper on September 2 at Calumet Lake, while 15 dowitchers and 2 stilt sandpipers were at Wolf Lake on September 7.

A single Franklin's gull was seen off Lincoln Park, Chicago, September 8, and 2 juveniles on September 14 (Clark). Other gulls and terns were in normal numbers, with a few Caspian terns being reported. At Davenport, Iowa, James Hodges considered the flight of nighthawks to be very poor, while at Rockford, Ill., about 110 miles northeast, Bennett recorded an increased number (402 in 1946, 234 in 1945) extending from August 23 to 27. At Evanston, Ill., 100 miles east of Rockford, the flight of nighthawks began on September 2 and continued in large numbers for about 10 days; mixed with flocks of Bonaparte's gulls, the birds "hawked" for insects high in the air.

A red-wing roost, containing at least 15,000 birds, was located in a marsh near West Lafayette, Ind., on October 19 (Burr, Webster). Starlings roosted on and around the Capitol building at Springfield, Ill., by the thousands on November 7. Most of the trees and shrubs at Montrose Point in Lincoln Park, Chicago, were used by 2500 purple martin on September 8 and 14; 700 remained on September 21 (Clark).

Larrabee noted his last eastern kingbird on September 13 at Yankton, S. D., and western kingbird on September 11. The wood pewee was last observed on September 28 in Lincoln Park (Clark, Nork). Chimney swifts were last seen at the Orland Refuge on October 5 (Clark), Springfield on October 7 (Eifert, Allyn), and Yankton on September 10 (Larrabee). Other late or unusual records include an immature indigo bunting on October 12 and a junco, identified as some form of *Junco oreganus*, on the same date, both in Lincoln Park (Clark, Nork). A bobolink on September 15 at the Orland Refuge by C.O.S. members was late. Clark had a scarlet tanager on September 29 in Lincoln Park, while Eifert and Allyn saw one at Springfield on September 27. James Hodges had an early Harris's sparrow on September 11 at Davenport, and Clark found one in Lincoln Park on September 29. Redpolls and a flock of 30 snow buntings were seen on November 17 at the Indiana Dunes by C.O.S. members. At Springfield, Bonney had the red-eyed, blue-headed, and yellow-throated vireos on October 1, a sycamore warbler on September 28, and 2 black-throated blue warblers on September 28. The latter species was seen on the same date in Lincoln Park (Nork, Clark). A Nelson's sparrow in a marsh near Springfield on October 14 was Bonney's first record, while a clay-colored sparrow on November 14 was her latest record.—PHILIP A. DUMONT, *Evanston, Ill.*

MISSOURI REGION.—August was rather cool with temperatures 2.3° below normal, while September, October, and November ranged from 0.5° to 5° above. Precipitation varied in different parts of the State but, in general, was in excess of normal. There were few abrupt changes in temperature and no severe storms or floods. In spite of increased precipitation in the fall, water levels remained rather low.



Waterfowl.—Observers agreed that the migration of ducks and geese was the poorest in many years. Blue-winged teal appeared in August and about 1000 ducks of 5 species (blue-winged and green-winged teal, black ducks, mallards, and pintails) were seen near St. Louis on September 14. Mallards and ring-necked ducks were reported to be fairly common in the north-central area, and lesser scaups and mallards the most common species in the extreme west. There were a few reports of gadwalls and baldpates. American mergansers were close to normal in numbers, but the buffle-head and golden-eye were apparently down. There were almost no reports of the other diving ducks. In several protected areas the largest number of ducks present at any time was reported to be about one-half of those present last year. Geese passed through in fair numbers between October 4 and November 23, but were definitely fewer than last year. Flocks of blues and lesser snows, containing hundreds of birds, were reported from both the Missouri and Mississippi flyways. Canada geese were observed in small numbers over the State. White-fronted geese were reported from Quivera (Johnson County, Kans.) on October 26, and Hutchins's goose was observed at the same locality on October 27.

Shorebirds.—The exposed shores and mudflats attracted great numbers of shorebirds from mid-July to late October. Least, semipalmated, and pectoral sandpipers, lesser yellow-legs and semipal-

mated plovers were common and well distributed on the lakes in the vicinity of St. Louis and in the upper Missouri Valley. On July 28 Hedges observed 3 and on August 4 about 50 of the rare buff-breasted sandpiper, feeding with killdeer and upland plover in newly cut, dry alfalfa fields in Johnson County, Kans. The same observer reported that of about 1000 shorebirds of 11 species seen at Big Lake, Holt County, Mo., on September 1 and 2, at least 25 were the quite uncommon stilt sandpiper. Long-billed dowitchers were frequently observed up to October 28. Other unusual shorebird records were: Baird's sandpiper at St. Louis on August 25 and at Bean Lake on September 2; white-rumped sandpiper, St. Louis, August 25; western sandpiper, 4 at Bean Lake on September 2, and 2 at St. Louis on September 14; sanderling, 3, in Platte County on September 2, (Hedges); black-billed plover, 3 on August 25 and 1 on September 14, St. Louis County, the first record with golden plover; ruddy turnstone, Platte County, August 24 (Newton); avocet, 2, St. Louis County, October 19 (Comfort); red-backed sandpiper, St. Charles County, November 23.

Gulls and terns.—Many black and Forster's terns passed through, and the Caspian tern was reported from the St. Louis and Kansas City areas in October. Ring-billed gulls were common: a flock of about 275 Franklin's gulls was observed at Quivera on October 27, and a Bonaparte's gull at the same place on November 17.

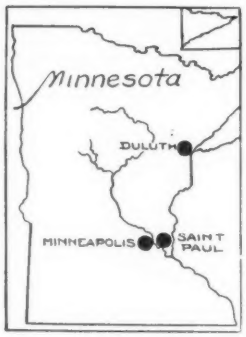
Other water birds.—White pelicans passed through the western part of the region in fair numbers—650 at the Squaw Creek Refuge on September 1 and 2, 250 at Iatan on October 15, and several smaller flocks in the central part of the State. Common loons were reported in much greater numbers than usual—29 were seen at Quivera on November 3, 20 at Horseshoe Lake, Ill., and 14 at Lake Park, Ill., early in November. A flock of 106 double-crested cormorants at Quivera on October 7 is probably the largest number ever reported from that area. American egrets were present in about usual numbers during late summer and early fall, but snowy egrets were unusually numerous. Between 15 and 20 of the latter were observed at St. Louis on August 25 (Comfort), and 3 at Sugar Lake, Platte County, August 11 (Newton). Yellow-crowned night herons were seen at Quivera on August 3 and September 21, and at St. Louis on August 25.

Hawks and owls.—The hawk migration was about normal, with the red-tail predominating and the marsh hawk second. Flocks of migrating hawks, apparently mostly red-tails and red-shoulders with some Cooper's, were reported from the northeastern part of the State on October 4. Krider's hawk in the west and the American rough-leg over the State were reported in greater numbers than in the fall of 1945. Ospreys seemed to be less numerous this year. The duck hawk was observed in Platte County on September 8, and at Lake Ozark on September 28. A saw-whet owl was seen in St. Louis County on November 17.

Warblers.—St. Louis observers reported a heavy flight of warblers in late August and during most of September, with 17 species recorded on September 1. The chestnut-sided warbler was unusually common. Warblers were less conspicuous in the west. Pine warblers were still common and in full song in the Ozarks on October 20.

Other land birds.—Migrating sparrows passed through in the usual numbers, with the vesper sparrow perhaps more common than usual. Purple finches were scarce, but pine siskins more common than for several years past. Hedges observed an early Arctic towhee at Quivera on September 27, and the Montana junco on October 27. The same observer reported many migrant flickers on September 25, with some red-shafted and 3 hybrids or intermediate types among them.—JAMES W. CUNNINGHAM, *Jefferson City, Mo.*

MINNESOTA REGION.—The month of August was unusually dry, with only 0.43 inches of precipitation, a record exceeded by only 2 other Augusts since 1891. Crops, grasses, and gardens suffered from the drought. The high temperature of 95.4° for August was also the highest for the year. There were only 2 thunderstorms, one on the 12th and one on the 17th. The lack of precipitation in August was compensated for by the excessive precipitation in the following month, which was the fourth wettest September on record since 1891. It was also a cool month, with temperatures averaging −1.6° below normal. On September 5 an unusual storm plunged the Twin Cities into darkness; lights were necessary in buildings and on automobiles for about 45 minutes just before noon; the heavy rains that fell set a record, with 1.25 inches in a 30-minute period. Light frosts occurred on September 1, 2, 29, and 30, but these were patchy in occurrence. October and November were quite normal. The first snowflakes, mixed with rain, fell on October 12, when the first killing frost came. There were a few thunderstorms in October, and one on November 15. The first snowfall was on November 3.



Egrets.—The American egrets, which made their annual late-summer invasion again this year as reported in the last issue, extended their range farther northward and came in greater numbers later in the season. Seven or 8 were reported as far north as St. Francis, Isanti County (Mrs. Rosenwall), and 2 were seen near Big Lake, Sherburne County (S. E. Angstman) on September 3. The

most westerly report of this bird was at Appleton, Minn., near the western boundary of the State (Mrs. C. E. Peterson). On Long Meadow Marsh near Minneapolis a compact flock of 150 egrets was seen on August 22 (Breckenridge, Gunderson), where last year only 10-12 were reported. On the afternoon of August 23 only about 6 egrets remained at this location, but Milton Thompson saw a great many a few miles farther up the Minnesota River bottoms near Shakopee about a week later. The scattered reports referred to at the beginning of this paragraph came in after the concentration was seen at the Long Meadow Marshes and could well have been from this group after it dispersed.

Waterfowl.—On August 13-15 on Long Meadow Marshes the writer saw a large number of ducks that presumably had been forced there by the drying up of many small prairie potholes; these species included mallards, a few black ducks, baldpates, pintails, blue-winged teal, green-winged teal, and shovellers. After the first cold weather strikes their northern range there is generally a concentrated flight through Minnesota of "northern" species, made up largely of mallards, redheads, canvas-backs, scaups, and ring-necks. This year there were no reports of such an occurrence, and most likely the ducks "filtered" through. Many ring-necks were seen in hunters' bags on the opening day (October 9) near an area where ring-necks do not nest (Gunderson). Blue-winged teal were seen at an unusually late date, November 30, on Lake Vadnais near St. Paul (A. C. Rosenwinkel).

Hawks.—On November 15, a goshawk appeared at the Long Meadow Marshes (Mrs. I. A. Lupient). The north shore of Lake Superior north of Duluth seems to create a natural barrier that concentrates migrating hawks in that area. During the first part of September there was an abundance of sparrow hawks there (numerous observers). Within the northern city limits of Duluth a natural pass for hawks is provided by a combination of ridge and gorge, which makes a convenient place for misguided people to shoot them, even though all except the Cooper's, sharp-shinned, and goshawk are now protected by Minnesota law. Miss Evelyn Jones of Washington High School in Duluth estimated that on one visit there were 3 dozen hawks strewn over this hillside, including marsh, red-tailed, and broad-winged hawks. A little later in the season, Dr. Lakela of Duluth wrote, "Many decayed on the ground before I knew what was going on. This morning I hiked to the hill but there were no fresh kills. The blind we tore down a week ago had not been raised. The steep hillside is littered with feathers and remains of birds shot earlier." Of the 31 specimens sent to the Museum of Natural History, 13 contained food material. One rough-leg contained a meadow mouse, 2 sharp-shins contained juncos, and 10 red-tails contained meadow mouse, thirteen-lined ground squirrel, short-tailed weasel, long-tailed shrew (*Sorex cinereus*), and red-backed mouse.

Shorebirds.—Brief mention was made in the last report of the beginning of the shorebird migration, consisting mostly of lesser yellow-legs, and pectoral, semipalmated, and least sandpipers. The greatest concentrations of shorebirds were seen from August 8 to 15. On August 8, 11 willets were seen at the Long Meadow Marshes (Mrs. I. A. Lupient); this species is only rarely seen in eastern Minnesota. Dr. Lakela reported seeing black-bellied plovers on August 15 on Minnesota Point; black-bellied and golden plovers, sanderlings, buff-breasted sandpipers, Baird's sandpipers and pectoral sandpipers on September 1; and 2 American knots in fall plumage on September 14. On October 6, Dr. Lakela wrote, "Sunday evening a number of plovers gathered there (Minnesota Point) to feed. At least a dozen golden plovers were seen, most of which were young, but 3 were definitely of adult aspect; black-bellied were numerous, including both young and juveniles. All were rather musical in contrast to their usual behaviour, the golden plovers especially whistled and chirped in melodious fashion." The last black-bellied plover seen by Dr. Lakela was on November 11.

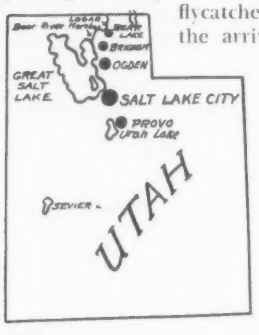
Snowy owls.—Early reports of snowy owls suggested another migration of considerable size, but there were no later records. One was reported from Shakopee about October 28, and on October 19 the museum received an especially large female with a wingspread of 63 inches; it had been caught in a trap near Grand Marais on the north shore of Lake Superior (W. E. Shemild). The Jaques reported seeing one at Grand Marais on October 27.

Land birds.—Dr. Vernon L. Whipple reported what probably was a hybrid between the red-shafted and northern flicker near Lac qui Parle in the western part of the State on November 3. He wrote, "I have seen many red-shafted flickers in California, but because of a somewhat lighter cast to the underwing parts of this bird it probably was a hybrid between the two species of flickers."

The first migrating warblers were seen on August 13 (Breckenridge, Lupient), and on September 17, Mrs. I. A. Lupient reported a large migration of warblers, thrushes, and vireos in the Twin Cities. Nelson's sparrow was observed at the Minnesota River bottoms near Minneapolis on October 2 (Breckenridge); this rather rare bird can usually be found at this same place each year during the fall migration, and was later reported there by several other people. The Hudsonian chickadee, which rarely comes as far south as the Twin Cities, has been frequently seen by observers this fall—1 on November 10 (Oscar Owre), 1 on November 12 with a group of black-capped chickadees and kinglets (Lulu May Aler), and 3 on November 23 at Lake Vadnais near St. Paul

(A. C. Rosenwinkel). Snow buntings and red crossbills were reported at a cedar swamp 30 miles north of Minneapolis on November 13 (Mrs. Cornica). Pine grosbeaks were seen at Lake Vadnais on November 9 (A. C. Rosenwinkel).—HARVEY L. GUNDERSON, *Museum of Natural History, Minneapolis, Minn.*

UTAH REGION.—The weather report must go back to a 10-day interval in June, between the passing of the last of the migrating goatsuckers, flycatchers, and grosbeaks, and the arrival of male baldpates on the Bear River Refuge. As previously reported, June and July weather was favorable, although July was dry and lacked its usual high temperatures. August downpours were not destructive, except at one point. On August 15 at Pelican Point, Utah County, R. Cederstrom reported a storm so violent that it drowned jack rabbits on the nearby benchland and beat songbirds out of the trees at his place and drowned them.



Summer temperatures continued to September 8. The earliest killing frost in weather-bureau records occurred on September 17, but the balance of the month brought Indian summer. October was one of the wettest months on record, with almost constant rain in the valleys and snow on the mountains. This period culminated in mid-November with an 8-inch snowfall in the valley; falling on unfrozen ground, the snow was gone in a few days despite the sharp freeze following the storm. On December 12 the ground was still unfrozen.

This situation may have accounted in part for some of the local high spots of this report—a greatly increased July concentration of Wilson's phalaropes on the south shore of Great Salt Lake and their early departure, an increased number of wintering crows in Utah, and avocets lingering into December and nighthawks to mid-October. A more northern weather report is probably essential to understand why baldpates and pintails began coming in so early, although not reaching peak numbers until the regular time. The early arrival of most species of shorebirds also showed a wide spread of dates, i.e. pectoral sandpiper, July 20 and October 6.

George Cox, custodian of the New State Gun Club, noted 2 definite arrivals and departures of pintails about a month apart, the last exit being a few days before the hunting season opened. With a third arrival of pintails and of mallards, however, there were as many ducks in early December as at any time since mid-August.

On a trip from Salt Lake to southeastern Colorado on October 2-8, E. R. Wilson found great numbers of migrating birds moving ahead of the October storm. Mountain bluebirds were everywhere from Provo, Utah, to a point near Cortez, Colo. There were hundreds of Audubon's warblers, 3 flocks of purple finches, and many house finches feeding in Russian thistle; gray-headed juncos were very numerous, with some Montanas and pink-sideds; Vesper, chipping, Brewer's, white-crowned, Gambel's, and song sparrows were also noted in numbers. Sparrow hawks were especially numerous about Monticello, Utah. Some birds seemed entirely out of place on this desert route; he found a number of both white- and red-breasted nuthatches on fences, as well as such mountain residents as Steller's jays and Clark's nutcrackers.

Following are some arrival and departure dates, including peak numbers of species and dates for a few lingering migrants and local breeders.

Grebes.—Eared, 1, December 1, Farmington Bay; western, hundreds, October 20, Utah Lake (42 counted from one point), and 3 pied-bills at the same place.

White pelican.—On his ranch near the northwest shore of Utah Lake on September 29, Woofenden watched between 40-50 flocks, numbering from a few to several hundred, pass over a field that he was plowing; the procession of flock after flock took at least an hour to pass. On the same date my party at Farmington Bay observed 2 southbound flocks of at least 300 birds each and 3 more made up of 24, 23, and 8 birds. The 2 larger flocks were 2 or more miles apart from east to west, and probably converged before reaching the Utah Lake region where Mr. Woofenden saw his steady procession of birds. On October 20, we observed a single flock of 84 passing over the same route and along the east slope of the lake mountains; 4 were also noted on Utah Lake on the same date.

Ducks.—The following dates represented peak populations at the Bear River Refuge (Van den Akker): mallard, September 20, 55,000; gadwall, October 25, 38,000; baldpate, October 25, 27,000; pintail, August 30 to October 3, 400,000; green-winged teal, October 3, 152,000; shoveller, October 3, 49,500; canvas-back, October 30, 15,000; American golden-eye, October 30, 2000; bufflehead, October 25, 2200.

Shorebirds.—Snowy plover, 51 on August 8 (L.), last noted at the Bear River Refuge on August 30 (Van den Akker). Semipalmated plover, 4, July 8 (early), Decker's Lake (L.). Black-bellied plover, last noted at B.R.R., August 30 (V.d.A.). Locally breeding long-billed curlew, flocking early (32, 20, and 4), east of B.R.R., July 12 (L., L. Williams); 2, September 20, B.R.R., (V.d.A.). Spotted sandpiper, B.R.R., October 4 (V.d.A.). Solitary sandpiper, 1, August 25 near Saltair, only record for the year (L., Taylor). Willet, last noted at B.R.R., September 29 (V.d.A.); 4, Farmington Bay, Octo-

Photo by Roger T. Peterson

White pelicans spilled over eastward of their normal range last fall. From August through October, individuals of this species were seen in eastern Wisconsin, southeastern Michigan, Massachusetts, Rhode Island, and Long Island.

ber 13 (L., my latest date by weeks). Greater yellow-legs, 16, near B.R.R., July 12 (L., L. Williams). Lesser yellow-legs, 1, July 12 (L., W.); peak of 500 at B.R.R. on September 20, and 12 there on October 24. Pectoral sandpiper, 2 on July 30, 3 on August 24 near Saltair, and 6 on October 26 at Decker's Lake (L.). Baird's sandpiper, 15,000, July 15, B.R.R. Dowitcher, 150, July 12, B.R.R. (L., W.); some still there on October 28 (V.d.A.). Western sandpiper, 5, July 12, B.R.R. (L., W.); 8 on July 20, and 200 on August 25 near Saltair (L., G. Taylor). Marbled godwit, 100, July 12, B.R.R. (L., W.); 73 west of Saltair (L.), and 6 near Payson (Pfouts); peak of 4000, B.R.R., September 20, and 60 there on October 24 (V.d.A.). Sanderling, 11, August 24, near Saltair (L.). Avocet, 3500, August 1, B.R.R. (V.d.A.); common at New State Gun Club throughout November (G. Cox); 12, Farmington Bay, December 1 (L.). Black-necked stilt, 4500 on August 1, last noted on September 23 at B.R.R. (V.d.A.). The peak (1500) of the Wilson's phalarope flight came on August 1 at the Bear River Refuge, but on July 20 there were great concentrations on Great Salt Lake near Saltair (L.); flocks from 500 to 1000 feet in length would rise, maneuver about, and resettle on the water. On August 25, Taylor and I found only 11 birds there. Northerns were observed in small numbers with the Wilson's on July 20, but by August 25 they had increased to several thousand (L., T.); northerns reached a peak of 5000 on August 15 at B.R.R.

Gulls and terns.—Most of the Californias leave in August, but a few remain here all winter; 100 were observed at 2 points on December 8 (L., Tanner). The first ring-bills were reported on August 1, with a peak of 1000 on October 3 at B.R.R., but a much larger population is carried in the Salt Lake region (L.). Franklin's gulls were gone by October 17 from B.R.R. Forster's and black terns reached peaks of 200 each on August 30, B.R.R. (V.d.A.).

Other water birds.—Double-crested cormorants were last noted on September 29, with 4 at Farmington Bay. A few snowy egrets were still at the Bear River Refuge on October 24 (Van den Akker). The main departure of white-faced glossy ibises from B.R.R. was from September 20 to October 3 (V.d.A.). The 400 whistling swans that arrived at B.R.R. on October 12 increased to 2200 on October 25 and to 10,000 on November 15, with the maximum probably not yet reached by early December (V.d.A.). Lesser snow geese first arrived at B.R.R. on September 24, and reached a peak of 11,000 on November 9 (V.d.A.). The only report of sandhill cranes was of a flock of about 20 that passed over the Woofenden Ranch on October 13. At Decker's Lake there were 1000 coot from August 15 to September 1 (L.).

Hawks.—The first American rough-leg was reported at the Bear River Refuge on October 19, and the first bald eagle on October 3 (Van den Akker). M. W. Nelson of the U.S. Dept. of Agriculture reported what was probably a migration of prairie falcons—8 on one pole line in Salt Lake County on December 1.

Goatsuckers.—Migrating nighthawks were common through September and early October; 59 were counted from one point at Decker's Lake, September 8 (L.). Ray Cowburn reported 10 about a downtown city light on October 3, and 2 on October 17. E. R. Wilson reported a poor-will near his home at Centerville, September 8.

Hummingbirds.—Calliope, 8, September 7 (G. Taylor).

Woodpeckers.—Taylor, Webb, and Lockerbie noted downys in the city throughout September. Lewis's did not return to their old wintering ground at the mouth of Big Cottonwood Canyon last fall (L.).

Flycatchers.—Arkansas kingbird, 2, August 29, last date (L.). Olive-sided flycatcher, Lindsay's Garden, August 29 (Webb).

Swallows.—Thousands of barn swallows were concentrated at the Bear River Refuge on July 12 (L., W.); at Decker's Lake there were 200-300 on September 8, 1000 on the 22nd, and 100 on the 29th (L.).

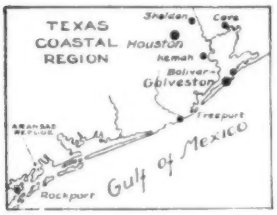
Jays and crows.—There was an early migration of piñon jays along the west front of the Wasatch Mountains in late August (E. R. Wilson, Webb). Calls were heard from migrating birds at Mueller's Park, September 8 (Audubon field trip). Wilson reported Steller's and Woodhouse's jays coming off the mountains earlier than usual. Crows arrived in Utah County on October 6 (Woofenden). Dr. L. D. Pfouts of Payton observed a crow flight of nearly an hour's duration across the south end of Utah Lake on October 27; the birds were flying very high and passed beyond the reach of 8x glasses. On November 3, Dr. D. Eldon Beck, of the Biology Dept. of B. Y. University, observed a flight at least 2 miles in length; this was not a migration, but was due to the disturbance caused by hunters on opening day of the pheasant season. Dr. Pfouts' observation may likewise have been caused by duck hunters' bombardment along the lake front, where the crows were accustomed to roost.

Vireos and warblers.—A Cassin's vireo was carefully observed on the Capitol grounds, October field trip (L.). The last warbling vireos, 3, were noted on September 8 (L.). Orange-crowned warblers were seen on August 4, 28, and September 2 (Webb). Calaveras warbler, 1 carefully noted, September 8 (W., T., L.). Migrant Audubon's warblers were seen across western Utah from September 14 to October 20 (L.). Yellow warbler, last observation on August 28 (Webb). Migrating Macgillivray's warblers were observed on August 28-29, Lindsay's Garden (W.); 1 about my home from August 29 to September 8, and 1 in Pages Lane on September 29 (L.). Male redstart, 1, August 20, Saltair pavilion (Webb).

Other land birds.—House wren migrating on August 29 (W.). Sage thrasher, last noted on September 29 (L.). Migrating hermit thrushes were seen from October 8 to November 2 (L.), and 8 olive-backed thrushes on August 28 (W.). Mountain bluebird, 200 on October 20 near Pelican Point; 2, November 2, same place. Migrant ruby-crowned kinglets were reported from September 8 on, with stragglers continuing up to December 14. American pipit, 2 on September 29, 50 on October 13, Farmington Bay (L.). Yellow-headed blackbird, peak of 1000 from August 15 to September 8 at Decker's Lake; 6, last record, September 29 (L.). Rosy finch, flock of 200, December 8 (W., T.). Chipping sparrow, 40 on October 7 at lower City Creek, 7 on October 13, and 2 on October 20 (last observation). Slate-colored junco, 2, November 10 (L.); Montana junco, first reported on October 2 (Webb), and the first pink-sided on October 13 (L.).

Rarities.—A female or immature varied thrush was carefully noted at Salt Lake City on December 8 and 17 (Lockerbie, K. Tanner)—no previous known record from Utah.—C. W. Lockerbie, *223 West 9th South St., Salt Lake City 4, Utah.*

TEXAS COASTAL REGION.—The entire season was extraordinarily wet and warm. In the Rockport area, for example, as much rain fell in September as normally falls in an entire year. The first mild norther (minimum temperature 71°) came on August 29. Another cool wave came on September 24; temperatures dropped to 55° on October 1, and 54° on October 4. But the first real norther came on October 11, with a minimum of 58°. There was another similar norther on November 10. No frosts and no hurricanes had occurred up to December 10.



General conditions.—The abnormal weather, although it was very much like that of the autumn of 1945, chiefly affected migrations by making transients and summer residents linger longer than usual, and by making the wintering species arrive in numbers later than usual. First arrivals of transient species were very little affected. Few hawks had arrived by December 10, and most of the small wintering woods birds were scarce. The shorebird flight was normal, although prolonged rather later than usual.

Geese and ducks.—A few Canada, white-fronted, lesser snow, and blue geese arrived at Rockport at the unheard-of early date of August 19; another contingent arrived about as usual in the 10 days after September 29; and large flocks came in during the last 10 days of October. Pintail, green-winged teal, and blue-winged teal arrived at Cove on August 25; mallard, baldpate, and shoveller on October 13; gadwall, canvas-back, lesser scaup, and red-breasted merganser between November 3 and 10; ring-necked duck on November 23. Arrivals at Rockport, over 200 miles southwest of Cove, were generally earlier: pintail on August 17, blue-winged teal on August 11, gadwall on October 21, ring-necked duck on November 10. Two canvas-backs at College Station (90 miles north of Houston) on September 24 were very early.

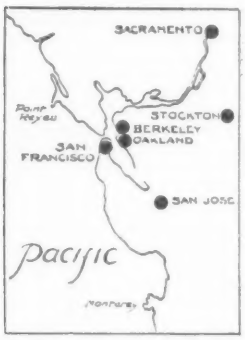
Shorebirds.—Most of the transient and wintering species showed up as usual in July or early August. Dates for Rockport and Corpus Christi (25 miles south of Rockport) follow: least and and western sandpipers on July 14; Baird's sandpiper and marbled godwit on July 16; dowitcher, lesser yellow-legs, and pectoral sandpiper on July 27; greater yellow-legs on July 31; spotted sandpiper on August 2; Hudsonian curlew on August 10. Upland plover arrived at Cove on July 16, and Wilson's snipe and red-backed sandpiper on October 13. Wilson's plover remained on Galveston Island at least until October 20 (late); upland plover at Victoria (50 miles north of Rockport) until October 10 (late); pectoral sandpiper at Rockport until November 10 (late); black-necked stilt at Cove until October 8, and at Rockport until November 13 (late). A Wilson's phalarope at Cove on October 8, and another on October 22 were phenomenally late.

Warblers.—The appearance of warblers in autumn on the Texas coast depends on weather conditions, and is always uncertain and irregular. But last autumn a good many species were observed. I have allowed the following list to become rather long simply to show the number of species that migrate through the region. Their earliest and latest dates for last fall follow: black and white at Rockport on September 6, Cove on October 12; Tennessee at Rockport on September 6, Kemah on October 13; Nashville at Rockport on October 21; yellow at Cove from August 13 to October 5; magnolia at Cove on September 29, Kemah on October 13; black-throated green at Cove on October 6; Kemah on October 13; sycamore at Cove to September 28; chestnut-sided at Rockport on September 8, Kemah on October 13; palm at Cove on August 31, College Station on September 24; oven-bird at Kemah on October 13; water-thrush at Cove from August 31 to September 28; Kentucky at Cove on August 15 and October 6; mourning at Cove on September 15; yellow-breasted chat at Cove on August 22, and 1 bird at Houston on November 28 and December 6 (Pattie); hooded at College Station on September 10, Kemah on October 13; Wilson's at Cove from September 15 to October 13; Canada at Cove from August 31 to October 6; redstart at Rockport on September 29, Kemah on October 13. Most of the second dates given in this list are later than average. (Data from Cove by McKay, from College Station by Gorzycki, from Kemah by Miner, from Rockport by Hagar.)

Fringillidae.—The first blue grosbeak of the autumn was seen at Cove on August 13, and the last on October 12; but it was at Rockport on November 23 (very late). The indigo bunting was at Cove from October 12 to November 3 (late); painted buntings remained at Cove until October 6 (late), and dickcissels until September 17. Nearly all of the winter sparrows arrived late; goldfinch at Cove on November 24, Rockport on November 29; savannah sparrow at Cove on October 23, Rockport on November 6; grasshopper, Leconte's, vesper, and song sparrows at Rockport on November 10; field and Lincoln's sparrows at Cove on October 12; white-throated sparrow at Houston on November 20, Cove on November 16.

Other items.—A flock of 4000-5000 wood ibis, 20 miles south of Houston, was migrating southwestward on October 12. While watching migrations through a telescope with the moon as background, at about 7:30 p.m., the writer certainly identified 4-5 swifts circling toward the southeast on November 7 (very late). A large migration of flickers, moving southward, passed through College Station on October 13-15. Another, but smaller, migration of the species occurred at Rockport on October 13, but was heading northward—GEORGE G. WILLIAMS, *The Rice Institute, Houston, Texas.*

SAN FRANCISCO REGION.—This year the soaking rains did not come until the third week of November, almost a month later than a year ago. The summer drought reduced the numbers of land birds and influenced the season of their presence. It also affected the inland waterbirds through the great reduction of fresh-water surfaces. The supply of acorns and many types of wild fruits was greater than usual and generally greater than the birds and other animals could use. Cool weather in the early fall softened some effects of the drought. The continued unfavorable conditions prolonged the scarcity of land birds and drove them from some localities.



The two examples here listed show that some birds were able to prolong nesting where others stopped early: spotted towhee, East Oakland, pair feeding large young out of nest on August 13 (Seibert); brown towhee, East Oakland, adult carrying food for young on August 13 (S.).

New sources of records bring mention of species not regularly seen or from places not usually covered in these summaries: white-tailed kite, Stockton, 1 on November 6 (Johnston); red-bellied hawk, 12 miles north of Stockton, 2 on September 30 (J.); ferruginous rough-leg, 10 miles north of Fresno, November 9, 17, and 23 (Minturn); osprey, mouth of Salinas River, September 12 (M.); duck hawk, Tulare Lake, 2 on October 5 (M.); Lewis's woodpecker, Arroyo Mocho (Kelly), Pardee Reservoir and Calaveras Dam, near Valley Springs (J.), numerous or abundant in October; Cassin's kingbird, Camp McQuaid, pair and one young on August 13 (M.); raven, Golden Gate Park, 3 each date on September 28 and October 1 and 2 (K.), Tulare Lake, more than 100, an unusual number so far east of coast range, October 5 (M.); western bluebird, 10 miles north of Fresno, September 21, early fall record for valley floor (M.); mountain bluebird, 10 miles north of Fresno, November 17 (M.); phainopepla, Arroyo Mocho, about 15 on October 9 (Kelly), 10 miles north of Fresno, pair on November 9 (M.); grasshopper sparrow, Carmel River mouth, September 12 (M.).

At Alameda in early November, Mrs. Kelly found shorebirds in variety and numbers. On a trip in October she saw concentrations of geese and ducks at Tule Lake, but learned that the numbers were much less than in other years.

The bed of Tulare Lake was dry in October, where in the spring Mr. Minturn had seen a sheet of water 4 by 5 miles across. The few big ditches were being rapidly pumped dry. Where he saw 1000 pintails this year, there were 20,000 last year and 300,000 in 1941. On the day before opening of the hunting season he made a trip in search of ducks, from Mendota to the refuge at Los Banos, and found fewer birds than in any of his 50 years of acquaintance with the area. At a pond 10 miles north of Fresno he found not a single duck this year, where always in other years there had been mallards or wood ducks. Obviously the Central Valley Project and the control of spring run-off are destroying the resting areas for waterbirds in the San Joaquin Valley, and there are still no refuges to replace them.

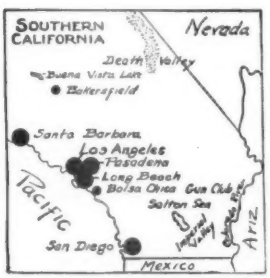
Numerous records of waterbirds deserve mention. Most of the following pertain to fresh-water occurrences: white pelican, Gold Lake, 22 on July 30, 12 on August 7 (Johnston), mouth of Pajaro River, 1 on September 3, Tulare Lake, 150 on October 5 (Minturn); green heron, 12 miles north of Stockton, September 30 (J.); American egret, Tulare Lake, 100 on October 5 (M.); snowy egret, Tulare Lake, 300 on October 5 (M.); black-crowned night heron, Tulare Lake, 200 on October 5 (M.); least bittern, Lake Merritt, September 29 (Curtis); white-faced glossy ibis, Tulare Lake, 4 on October 5 (M.); fulvous tree-duck, Tulare Lake, parents and 6 young still unable to fly, October 5 (M.); wood duck, Pardee Reservoir, near Valley Springs, 1 on October 13 (J.); hooded merganser, Phoenix Lake, Marin County, 3 on November 2 (Kelly); sandhill crane, Tulare Lake, 29 on October 5 (M.); spotted sandpiper, San Joaquin River, near Fresno, 4 on November 23 (M.); ruddy turnstone, Santa Cruz, more on October 4 than ever seen before (M.); knot, Moss Landing, 12 on September

4 (M.); sanderling, Pajaro River mudflats, 4000-5000 on September 12 (M.); black-necked stilt, Tulare Lake, 15 on October 5 (M.); avocet, Tulare Lake, 1000-1500 on October 5 (M.); Wilson's phalarope, Mono Lake, immense flocks on July 14 (M.); northern phalarope, Mono Lake, thousands on October 10 (J.); short-billed gull, Fine Arts Pool, San Francisco, November 3 (Kelly).

Many of the summer birds slipped away without notice. The following represented late presence for at least one location in the region: mourning dove, East Oakland, 10-12 on October 26 (Seibert); poor-will, Tioga Pass, east slope at 8200 feet, 1 dead on road, September 10 (Johnston); western flycatcher, Golden Gate Park, September 28 (Kelly); tree swallow, Tulare Lake, more than 1000 on October 5, feeding in strong north wind (Minturn); barn swallow, Tulare Lake, 1 on October 5 (M.); house wren, East Oakland, October 26 (Seibert); yellow warbler, Golden Gate Park, September 26 (K.); western tanager, Berkeley, September 21 (K.), and 12 miles north of Stockton, September 30 (J.); chipping sparrow, Woodbridge, 12 miles north of Stockton, 3 on November 28 (J.).

Arrival of wintering birds was detected late, possibly because not many individuals came, but also because of delay in their travels: hermit thrush, Mills College, October 6 (Seibert); ruby-crowned kinglet, Strawberry Canyon, Berkeley, September 31 (Kelly); Audubon's warbler, 10 miles east of Stockton, September 22 (Johnston); vesper sparrow, Fresno, September 27 (Minturn); white-crowned sparrow, East Oakland, September 20 (S.); Fresno, September 27 (M.), 12 miles north of Stockton, September 30 (J.), Alameda, October 4 (K.); golden-crowned sparrow, East Oakland, September 22 (S.), Alameda, September 28 (K.); fox sparrow, Golden Gate Park, October 1 (K.); Lincoln's sparrow, 12 miles north of Stockton, September 30 (J.).—JEAN M. LINSDALE, *Hastings Reservation, Jamesburg Route, Monterey, Calif.*

SOUTHERN CALIFORNIA REGION.—A protracted heat wave in August and September with many days over 100° in inland valleys prevented much active field work. Consequently, a few notes in July are followed by more detailed ones after mid-September. Three light rains in October were climaxed on November 10 by a frost and in mid-November by rains of local flood proportions, bringing snow to the mountains over 4000 feet and unusually early winter weather everywhere.



Information on departure of summer residents was meager. Texas nighthawks, ash-throated flycatchers, and western kingbirds had left certain breeding areas in San Diego County by the end of August (Keith Dixon), although the kingbirds were still numerous in Imperial Valley on September 6, with stragglers to October 6 at Griffith Park, Los Angeles (Justin Russell). The last singing Bell's vireos were seen at San Pasqual in late August (K. D.), although a migrant appeared on San Jose Creek, north of Whittier, on October 23 and 26, about the same date as last year (Comby). Phainopeplas left the Burbank foothills about August 30 (Daugherty), but stayed at Banning to September 23 (Wilson). A few other "last-seen" dates, mostly of stragglers, were: western wood pewee, September 24 at Pasadena; warbling vireo, September 22, and black-chinned sparrow, October 20, both at Griffith Park (J. R.); hooded oriole, male in Pasadena to September 11, 2 females on September 19 (Cogswell). Three very late records were: poor-will, November 16, 2 in Dalton Canyon near Glendora foraging in normal aerial manner from roadway (not in semi-stupor reported for wintering birds)—Cogswell; solitary vireo, November 17, Griffith Park (J. R.); and a full-plumaged male Bullock's oriole, November 23 and 28, San Jose Creek (Comby).

First migrant rufous and Allen's hummingbirds, combined in most reports because of the impossibility of separating other than bright males in the field, had arrived at Griffith Park by June 16, with 35-60 there on the 30th (J. R.). Many were reported throughout July from the high Sierras (Curry) to lowlands around Newport Bay (Mrs. E. D. Morton), with last stragglers at Banning on September 26 (Wilson) and in East Pasadena on October 10 (Cogswell).

Warblers.—There was a good wave of orange-crowns on September 17-19 at Pasadena and San Jose Creek; one bird at the latter locality was found caught by the wrist on a bamooo splinter and released apparently uninjured (Comby). On September 22 in Palos Verdes Hills (breeding range of "dusky" subspecies), some 15-20 birds included both light and dark forms (Shuart). Yellow warblers were below normal, and were recorded as migrants from July 21 to October 6 at Griffith Park (J. R.), with a maximum on September 13-28 when they appeared throughout Pasadena residential areas (Cogswell). Pileolateds, although below normal, were perhaps the commonest migrants—recorded from August 1 to October 17, with up to 20 at a single locality in late September. Black-throated grays were very scarce, only 6 recorded from September 8 to November 3; Nashville, 1, August 25, and the last chat, September 29, both in Griffith Park (J. R.); Macgillivray's, 1, September 9 and 12, Banning (W.); Townsend's, 2 November records, probably wintering individuals. The winter visitant Audubon's arrived suddenly in the San Raphael Hills of Pasadena on September 27 (C.), at Sunland on the 29th (Shearer), and at Banning on October 4 (W.). There was a definite increase in their numbers on October 16-17 (300+ on a

casual ½-day coverage of suburban area) and a decrease again, in Pasadena at least, in late November.

Because so many species remain here through the winter in greater or lesser numbers, actual migration movements are not easily discerned. The most conspicuous daytime migrants were scarce last fall; turkey vulture, 50, September 23, over Griffith Park (Daugherty), and 40, October 26, Newport to Carlsbad (Stultz, D., Groner); Swainson's hawk, 3, October 6, Griffith Park (J. R.), and 15, October 12, Glendale (D.), with no reports from the desert slope where they are commoner in fall; osprey, 1, September 6, Bolsa Chica (Comby); Vaux's swift, one rather late record, 3+, October 2, Pasadena (Cogswell). Marsh hawks were much less numerous on the coastal plain than for many autumns. At Newport Bay on September 6, Mr. Comby saw one catch a northern phalarope.

The phalarope migration spread over 4 months, July 16 to a late November 11 (Kent) for northerns, with maximum flocks of 100+ in late July at Newport Bay (M.). Larger concentrations were probably missed due to the August hot spell. One Wilson's phalarope at Newport Bay, July 16 (S., D.), broke the "earliest" record by 4 days, and 50 at a Carlsbad lagoon on August 19 (K.) represented a good concentration.

Shorebirds.—The following maximum numbers were reported at single favorable localities along the Los Angeles County shore in mid-September: snowy plover, flock of 65; semipalmated plover, 30; black-bellied plover, flock of 500+; long-billed curlew, 3 (very low); Hudsonian curlew, 20 (larger flocks as early as July 12 at Santa Monica); willet, 2000 est. (above normal); red-backed sandpiper, 22 (low); dowitcher, 1000; sanderling, 1000; marbled godwit, 1000. Avocets were above normal (which is high) at Carlsbad on September 15 (Ken Stott), with an estimated 1000 to 2000 still there on October 27 (S., D., G., C.).

Terns.—Flocks of 100-200 Forster's terns were seen in July at Bolsa Chica, with many birds still at Playa del Rey and Carlsbad on September 15, but reduced to about 50 at each place by November. Common terns accompanied them in resting on mudflats and beaches, the immatures being picked out by dark areas on the leading edge of the wing—15 at Playa del Rey, last half of September (Cogswell, Watson), and 12 at Santa Monica, October 1 (Comby). Royals were generally scarce, although listed as "many" at Carlsbad in September and 19 were counted there, October 27 (S., D., G.). Four elegant terns at Playa del Rey, September 15 (C., W.) were listed with a (?), but 2+ like them at Santa Monica on the 29th were compared directly with royals to establish identity by their smaller size and much slenderer bill (Cogswell). It seems that painstaking observation would produce more records of elegants among the royals. The only black terns were 2 at Carlsbad, August 19 (K.).

Pelagic birds were found to be very scarce in the channel between Catalina Island and the mainland as compared with the same area before 1942 (Stultz). On September 7, Mr. Kent reported a total of 3 pink-footed and 7 sooty shearwaters, 7 black petrels (a goodly number), and 1 Sabine's gull. On October 20, by traveling 25 miles beyond Catalina to Santa Barbara Id., a group of L.A.A.S. members found only 5 distant pink-footed and 5 sooty (?) shearwaters, and 1 Leach's petrel, with the highlight of the trip being an adult bald eagle on a rocky crag of Catalina Id., where the species is resident. Three Sabine's gulls were also seen from the San Pedro breakwater on October 12 (Stultzes).

Wood ibis came to the San Diego County coast in the greatest numbers since 1938 (Ken Stott); counts at the Maxton Brown Sanctuary at Carlsbad varied from 75 on July 30 to 150+ on September 15, with 50 also on the 15th at Cardiff, and 94 along the highway in Imperial Valley on September 8.

Three species not ordinarily considered as migratory apparently are, at least locally, in the Banning area. Bewick's wren, a winter visitant there, arrived on November 28; spotted towhees arrived on September 12 and stayed until the 26th; and Chinese spotted doves were absent from the last of May until November 24 (Wilson).

Records of interest chiefly because of locality or the erratic nature or semirarity of the species follow: July 20, immature Virginia rail caught by cat in Altadena (Quattlebaum); September 29, grasshopper sparrow, 2, Sepulveda Dam in San Fernando Valley (S., D.); October 6, Brewer's sparrow, Banning (W.); October 23, Lewis's woodpecker, East Pasadena (Q.), and Banning, where it was the first since 1942-43 and stayed until October 31 (W.); desert sparrow on Pacific slope in Tujunga Wash, November 17 (Cogswell, I. Barnes); wood duck, female at Santa Anita Rancho, Arcadia, November 15 (C., I. B.), and male at Devil's Gate Dam, November 24 (L.A.A.S.). The greatest rarity was a black oyster-catcher at Ballona Creek mouth from November 12 into December (many observers); it consorted with black and ruddy turnstones on the jetties, and with the surf-birds, which have now been seen at this small bit of artificial rocky shore every month of the year, although only one during June and July.—Howard L. Cogswell, *San Gabriel River Wildlife Sanctuary, 2610 S. Durfee Ave., El Monte, Calif.*